What is claimed is:

[Claim 1] A method of calibrating at least one occupant classification sensor comprising:

receiving calibration signals originating from at least one on-board vehicle calibration device;
performing at least one calibration task comprising initializing and generating a baseline for the at least one occupant classification sensor in response to said calibration signals; and
indicating performance confirmation of said at least one calibration task.

[Claim 2] A method as in claim 1 further comprising actuating at least a portion of said at least one on-board vehicle calibration device.

[Claim 3] A method as in claim 2 wherein said at least one calibration task is performed in response to said actuation of said portion.

[Claim 4] A method as in claim 1 further comprising generating said calibration signals in response to actuation of an ignition switch.

[Claim 5] A method as in claim 1 further comprising generating said calibration signals in response to application of pressure on a seat system for a predetermined time period.

[Claim 6] A method as in claim 1 further comprising generating said calibration signals in response to buckling and unbuckling a seat belt a predetermined amount.

[Claim 7] A method as in claim 1 further comprising generating said calibration signals in response to releasing pressure on a seat system.

[Claim 8] A method as in claim 1 wherein generating said baseline comprises zeroing said at least one occupant classification sensor.

[Claim 9] A method as in claim 1 wherein indicating performance confirmation of said at least one calibration task comprises indicating confirmation of an initialization mode.

[Claim 10] A method as in claim 1 wherein indicating performance confirmation of said at least one calibration task comprises flashing a lamp a predetermined amount.

[Claim 11] A method as in claim 1 further comprising:

generating occupant classification signals in response to said baseline;
generating a calibrated output in response to said calibration signals and said occupant classification signals; and
verifying said calibrated output.

[Claim 12] A system as in claim 1 wherein said at least one calibration task is performed in response to said calibration signals received in a predetermined sequence.

[Claim 13] An occupant classification system comprising:

at least one occupant classification sensor having a baseline and generating occupant classification signals;
a controller receiving calibration signals originating from at least one on-board vehicle calibration device and configured to adjust said baseline and generate a calibrated output in response to said occupant classification signals and said calibration signals; and
an indicator coupled to said controller and indicating performance confirmation of at least one calibration task.

[Claim 14] A system as in claim 13 wherein said at least one occupant classification sensor is selected from at least one of a pressure sensor, a strain gage, a piezo electric sensor, an infrared sensor, a piezo resistive sensor, and an ultrasonic sensor.

[Claim 15] A system as in claim 13 wherein said baseline is selected from an occupant weight baseline, an occupant position baseline, an occupant present baseline, and an occupant size baseline.

[Claim 16] A system as in claim 13 wherein said on-board calibration device is selected from at least one of a brake pedal, a gas pedal, a key cylinder, an ignition switch, a key receiver, a timer, a seat, seat belt buckle, a set belt retractor, a seat belt receiver, a seat belt buckle receiver, a seat belt anchor, a button, a switch, and a dial.

[Claim 17] A system as in claim 13 wherein said indicator is selected from at least one of an LCD display, a monitor, an LED, a display, a dashboard vehicle system status indicator, an audio system, a video system, a heads-up display, and a lamp.

[Claim 18] A system as in claim 13 wherein said controller adjusts said baseline when said calibrations signals are received in a predetermined sequence.

[Claim 19] A countermeasure system for a vehicle comprising:

at least one collision detection sensor configured to detect an object and generate an object detection signal;
at least one occupant classification sensor having a baseline and generating occupant classification signals;
a controller receiving calibration signals originating from at least one on-board vehicle calibration device and configured to adjust said baseline and generate a calibrated output in response to said occupant classification signals and said calibration signals;
an indicator coupled to said controller and configured to indicate performance confirmation of at least one calibration task; and
said controller performing a countermeasure in response to said object detection signal and said calibrated output.

[Claim 20] A system as in claim 19 wherein performing a countermeasure comprises activating at least one countermeasure device selected from a pretensioner, an air bag, a knee bolster device, a head restraint device, and a load limiting device.